Politics, the Environment and USF St. Petersburg Students

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Abstract

The Republican and Democratic parties have long had different agendas that have changed through time. The purpose of this study is to analyze the relationship between political party platforms, the political leanings of college students at the St. Petersburg campus of the University of South Florida and their perspective on selected environmental issues. How do college students feel about the environment? Are Republican college students more or less supportive of environmental issues? What about Democratic college students? There are many environmental issues, but this study focuses on organic food consumption, recycling and solar energy. This research contains an examination of 2016 Republican and Democratic party platforms on the environment; a literature review of organic food consumption, recycling and solar power; and it features results and analysis from an online survey of more than 100 USF St. Petersburg students. The most important finding is that although most of our student respondents claimed to be supporters of organic food consumption, recycling and solar energy use—larger percentages of supporters of all three of these environmental/sustainability activities came from those identifying with the left side of the political spectrum (moderate Democrats, progressive Democrats and Socialists).

Introduction

We live in politically polarized times. Democrats and Republicans in Florida and elsewhere, often strongly disagree about many policy issues, including how to handle environmental problems. Florida Republican Governor Ron DeSantis surprised many in his January 2019 inaugural speech by calling for serious efforts to protect water quality and other aspects of the state's environment (DeSantis 2019). This may not have surprised fellow Republicans, but it certainly (and pleasantly) surprised many environmental advocates (Mogensen 2019). One environmental consultant observed that "DeSantis has done more in two days than [former Gov. Rick] Scott did during his entire eight years in office" (Laura Reynolds, as quoted in Smiley 2019). Long time *Miami Herald* columnist Carl Hiaasen (2019) expressed cautious optimism for the new governor, noting that DeSantis appears to have heard of President Theodore Roosevelt.

Theodore Roosevelt and early twentieth century Republicans rightly deserve credit for putting time and energy into what we now call environmental protection. More than a century ago, intellectuals such as John Muir argued for environmental preservation: setting aside landscapes for passive use only. Roosevelt, Gifford Pinchot (the president's selection to lead the

new U.S. Forest Service in 1905) and other progressive Republicans of that era pushed environmental conservation—a view that insisted people make maximum use of resources while exercising care to ensure that renewable resources such as forests be replanted in order to sustain the benefits they provide. Indeed, several years before becoming president in 1901, Roosevelt grew alarmed with the depletion of the nation's natural resources, especially wildlife (Lunde 2016). Accordingly, President Roosevelt's primary contribution to environmental protection was setting aside millions of acres of land as National Forests, National Parks, National Monuments, and National Wildlife Refuges. This included creation of north central Florida's Ocala National Forest in 1908, the first National Forest established east of the Mississippi River (Kendrick and Walsh 2007); and beginning the National Wildlife Refuge system in 1903 with Pelican Island, in east central Florida's Indian River Lagoon (Osborn 2016).

Theodore Roosevelt was not the only Republican president of the twentieth century to take action on behalf of the environment. President Dwight D. Eisenhower signed a modest Air Pollution Control Act of 1955 (precursor to the more expansive Clean Air Act of 1970); he ordered the protection of what later became the Alaska National Wildlife Refuge in 1960; and he was the last Republican president to create a new National Monument (he created two) until President George W. Bush followed suit in 2006 and again toward the end of his presidency. Republican President Richard M. Nixon cobbled together several existing federal agencies in 1970 to create the Environmental Protection Agency; most Republicans in Congress voted in favor of the 1970 Clean Air Act; and many Republicans voted to override Nixon's veto of the 1972 Clean Water Act (which he objected to because of its cost; Snider 2012; Fuller 2014).

In Florida, many Republicans joined Democrats in the state legislature to create several landmark pieces of environmental protection and growth management law in the 1970s and 1980s (Colburn 2013). Indeed, in 2018, Florida environmentalists mourned the passing of Nathanial P. Reed—a Republican, and one of the state's most prominent, long-time, environmental advocates. Yet as one political observer put it: "Conservatives had been tiptoeing away from environmentalism since President [Ronald] Reagan took office in 1981" (Fuller 2014). Since the 1980s, prominent Republicans in Washington and Tallahassee occasionally spoke in defense of environmental protection, but their voices soon became far fewer in number. With the elections of Barack Obama and particularly Donald Trump to the U.S. presidency, the Republican "tiptoe" away from the environment became a stampede (Sellers 2017). Since the 1990s, many prominent Republicans have not directly attacked efforts to protect the environment; but they speak out against taxes, regulation, government overreach, and occasionally even the legitimacy of science itself—and the net result has been serious threats to the American environmental protection apparatus.

Konisky et al. (2008) analyzed several studies examining the relationship between political parties and environmental issues. They found conflicting results mainly due to the generalization of all environmental problems under one umbrella. Still, they concluded that individuals who identified as Republicans are often less supportive of government intervention to address environmental issues while Democrats are usually more supportive of government intervention to address environmental problems. Then again, in 2014, 75% of Florida voters (more than 4.2 million people) voted for Amendment 1 (Ballotpedia, n.d.). This amendment now Section 28[b]1 of Article X in Florida's constitution—demands that for the next 20 years, one third of the pre-existing documentary stamp tax collected on each Florida real estate transaction shall be devoted to acquire, restore, improve, and manage conservation lands. Given that on the eve of the 2014 election, Florida had 4.6 million registered Democrats, 4.2 million registered Republicans, and 3.2 million Independents and others registered with minor parties (Florida DOE 2014), many Republican voters almost certainly supported this environmental protection initiative. Discussing one's support for "sustainability," "the environment is such a broad concept and its "protection" can occur in nearly countless ways including support for government policy and intervention as well as personal action.

Given the strong support that Democratic presidential candidate Bernie Sanders received on university campuses across the nation during the 2016 election campaign, one might be forgiven for assuming that college students are very concerned about the environment and willing to take action to protect it. After all, the Vermont Senator and presidential candidate developed a platform that demanded U.S. leadership in combating global climate change while calling for clean, sustainable energy production and reduced support for fossil fuel production (Sanders n.d.). In fact, Hart Research Associates (2015) found in a nationwide sample of 803 college students that 80% of students polled thought that climate change is a serious or somewhat serious problem. Interestingly, they also claim (on p.14) that "Conservatives are the least likely to say so, with only 56% agreeing that global warming is a serious problem, compared with 90% of liberals." Hart and associates also found strong support among students for solar power development, although they did not break this down by political party or conservative vs. liberal. They did not have to: fully 90% of students surveyed in 2015 favored using government incentives to support wind and solar power development.

Finally, there is no shortage of geographers who explore relationships between people, politics and environment, but few (if any) publish on the relationship between American political parties and environmental perspectives. For example, John Agnew et al.'s (2015) huge survey of political geography features 37 chapters, including one on "Resources" (Furlong and Norman 2015) and another on "Environment: From Determinism to the Anthropocene" (Dalby 2015)—but neither of these chapters explicitly deals with political parties and environmental perspectives. Holifield et al. (2017) have compiled numerous essays from geographers who examine environmental justice from many angles, but not political parties and environmental issues. Political ecology is a burgeoning sub-field within (but not limited to) geography, but Perreault et al.'s (2015) survey of this field says nothing about political parties and environmental perspectives; and neither does O'Lear's (2018) *Environmental Geopolitics*. These reviews of the literature are not exhaustive but they do outline significant trends in scholarship by geographers who explore connections between politics and the environment.

This study seeks to shed light on the following questions. First, is the Republican Party less supportive of environmental protection than the Democratic Party? Second, are college students generally more progressive on environmental issues? And third, are college students who self-identify as Democrats more likely than those who identify as Republicans to support efforts to improve the environment? We thought it might be helpful to ask a sample of college students how they label themselves politically and what they think about three specific environmental issues: electricity production using solar energy; recycling paper, plastics and metals; and organic food consumption. We selected these specific issues partly because we wanted to avoid asking people if they supported "sustainability," "the environment" or "environmental protection." We believe that these generic phrases are not likely to yield useful information. We chose to focus on recycling, solar power and organic food consumption because each of these are concrete activities that people could do in order to engage in sustainability and environmental protection.

Organic Food Production and Consumption

Agriculture began in several parts of the world between 8,000 and 10,000 years ago, enabling human population growth and civilization (Peña 2015). Early farming techniques depended on local climate conditions. Eventually, farmers applied natural fertilizers such as manure to enhance cropland productivity. Much of today's conventional agriculture (especially in more developed countries) uses chemicals and genetically modified organisms that require significant inputs of water, energy and money, but this imposes costs on the environment. Organic farming does not use synthetic chemicals, hormones, antibiotic agents, genetic engineering or irradiation (Forman and Silverstein 2012). Furthermore, soil nutrient content and fertility is managed through cultivation practices that use physical, biological and mechanical controls for pests, weeds and diseases.

Increasing numbers of people consume organic food because they perceive that it is healthier choice than conventionally produced food, and because they believe it is environmentally sustainable (Gomiero 2018). Yet research to support the value of organic food production and consumption is not definitive (Winter and Davis 2006; Dangour et al. 2009). In a few cases organically produced food contains more nutrition; and in many cases, organic food has fewer pesticides and other chemical residues. Moreover, farm workers on organic operations are far less likely to be exposed to hazardous chemicals, and livestock are usually more humanely treated. Eating organic food sounds like a good idea, but there is little direct evidence of benefits.

While organic farming procedures have evolved throughout the past several decades, organic labeling has also expanded from government agency certification to independent organizations that work as third-party certifiers (TPC). TPCs are organizations independent from government agencies, retailers and suppliers involved in food or agricultural production, and have the responsibility to access, evaluate and certify safety and quality claims (Hatanaka et al. 2005). At the same time, the multiplicity of TPC labels with slightly different meanings creates

challenges for consumers. Although third party certification labels are intended to reduce consumer risk, inform and facilitate the decision-making process when purchasing organic agrifood items, consumers are often suspicious of such labels because they are concerned about "greenwashing." In this context, greenwashing refers to marketing products or policies as environmentally friendly when they are not (Dahl 2010). It is possible that the risk of greenwashing often gives consumers pause, and in some cases leads them to avoid consuming organic food.

Those familiar with organic farming or shopping know that such foods are often more expensive than conventionally produce food—but this is changing. Durbin (2019) reports that, in 2018, "organic food and beverages cost an average of 24 cents more per unit than conventional food, or about 7.5 percent more . . ." This premium was 27 cents per item, or 9 percent, in 2014. As Durbin (2019) explains, some organic foods cost nearly double that of their conventionally produced counterparts while others (such as organic baby food) are barely more and still others (such as organically produced soy milk and Granny Smith apples) occasionally cost even less. Organic food often costs more than conventional food because its production methods are often more expensive. For example, instead of using relatively inexpensive pesticides, organic farmers may spend more on the labor necessary to control weeds. Of course, many other factors impact the price of organic food including increasing demand, food scares (such as *E. coli* outbreaks), government policy and the condition of the economy.

According to researchers at the University of Florida's Institute of Food and Agricultural Sciences (Nguyen et al. 2019), consumer demand for organic food has grown 20% or more annually since the 1990s and the market for organic food is one of the fastest growing sectors in agriculture, with supply incapable of satisfying demands. Florida has just 133 certified organic farming operations; a small number to supply a state with 21 million people and counting. The state's organic producers have stated their need for internet accessibility as well as printed publications on organic food production topics specific to Florida conditions in order to better respond to the growing demand for organic food.

Recycling

For much of human history, solid waste was not a big problem because there was so little of it, and much of it consisted of organic materials that eventually decayed. Indeed, much of coastal Florida used to be graced by dirt covered mounds of discarded bi-valve shells, often referred to as Indian mounds or middens. The growth and development of urban areas led to the concentration of wastes and the challenge of coping with all of that garbage. By the early twentieth century, many Florida communities began to collect solid waste, haul it to the outskirts of town, and in some cases, set it on fire (Fairbanks et al. 2013). Eventually, solid waste managers began burying garbage or covering piles of trash with dirt. By the 1950s, not only did Floridians produce more trash than ever before, they produced much more material that will take centuries to degrade, especially plastics; and finding places to bury all that waste became an increasing challenge. Broward County's "Mount Trashmore" is now more than 200 feet tall and will probably stop taking trash in 2035 (when it reaches a height of 225 feet), or sooner if hurricanes generate excessive refuse in South Florida—and it is not clear what Broward will do with its garbage after that date (Geggis 2018).

During the Great Depression, many communities organized scrap drives in order to recover scarce materials, and during World War II, authorities occasionally organized collection efforts to gather strategic materials for the war effort (Strasser 2013). After the war, solid waste generation increased significantly and during the 1960s and 1970s, Congress passed several laws that pushed many communities to more effectively manage solid waste, including the introduction of formal recycling programs. Florida did too; but it was not easy because pouring garbage into a hole or pile and then covering it with dirt is less expensive than recycling, which requires money for collection, separation of recyclable materials, marketing and transportation of raw material to processing facilities. The state's Solid Waste Management Act of 1988 set a goal for each of its 67 counties to recycle at least 30% of its garbage by 1994—a significant improvement for a state that recycled just 4% of its trash in 1988 (DER 1991). Florida approached recycling 40% of its solid waste in 1996, but recycling goals were ultimately watered down (in order to reduce costs) and despite a stated goal of recycling 75% of the state's garbage in Florida's 2008 Energy Act, subsequent legislation allowed for counting garbage incinerated to produce electricity as "recycled." Of course, energy recovery (waste-toenergy) plants are not cheap: Palm Beach County spent \$672 million for a large, state-of-the-art facility that opened in 2015 (Shammas 2015).

No matter. As Floridians confront the expense of waste-to-energy operations, the reality that nobody wants a landfill near their property and the fact that Florida continues to generate mountains of trash—recycling remains a reasonably popular and politically attractive option. Yet even recycling faces challenges. Take glass for example. Waste glass is heavy and expensive to transport; broken glass is hard to sort, damages equipment at recycling centers and contaminates other recyclables such as plastics and paper; and even properly recycled glass yields a low value commodity. For all of these reasons, plus the fact that glass does not contaminate the soil, most Florida communities simply toss glass into landfills (Palmer 2017). Price problems bedevil other recyclable materials such as plastic and paper. According to Esch (2018), "Cities and towns that once made money on recyclables are instead paying high fees to processing plants to take them. Some financially strapped recycling processors have shut down entirely, leaving municipalities with no choice but to dump or incinerate their recyclables." There are a couple of related problems to blame for these recent troubles. First, in an effort to make recycling easy, many municipalities allow people to put all recyclable material into one or two bins. Not only does this make separation a costly activity, it leads many well-meaning citizens to throw inappropriate material into recycling bins such as half-full drink containers, pizza boxes loaded with grease and cheese, old strings of Christmas lights and many other objects that seem like they should be recycled. In short, it reduces the purity of recyclable material, rendering it less valuable. Then in early 2018, China-which used to buy 40% of the United States' waste plastic and two-thirds of its waste paper-made good on a threat they have been issuing for years: they now demand that imports of recycled material be 99.5% pure (Daigneau 2018; Greenblatt 2018). This is an almost impossible standard to meet given the

current, sloppy state of recycling in the U.S. Despite these current problems, as costs for dealing with solid waste continue to rise, recycling remains popular and people will likely (eventually) become more willing to alter their behavior in order to make recycling more effective.

Solar Power

Fossil fuels (coal, oil and natural gas) are not only finite resources, burning them to generate electricity, power vehicles, heat homes and run industries is creating a host of environmental challenges such as air pollution, global climate change and a range of issues associated with fossil fuel extraction. This has led many people to pursue less damaging, renewable energy resources such as solar power. Solar energy can be used to warm water or, with the use of photovoltaic panels, it can produce electricity. Over the past few decades, material use, device design, and production technologies have all improved to make solar power more viable in Florida and around the world (Sampaio et al. 2017).

According to a Gallup poll conducted in March 2018 (as reported in Jones 2018), "73% of adults prefer an [energy production] approach that focuses on developing alternative energy sources such as solar and wind power, while 21% favor one that targets production of more oil, gas and coal supplies. The strong tilt toward the alternative energy solution has always existed since Gallup first asked the question in 2011, but it has been larger the past three years." That support has been accompanied by a decrease in costs as well as policy initiatives at the national and state level. For example, Section 1603 of the American Recovery and Reinvestment Act of 2009 provided investment tax credits of 30% for renewable energy installations, and this was eventually extended by Congress through the year 2019. Despite decreasing costs and increased appetite for solar power, just under 2% of the U.S.'s electricity comes from solar energy (EIA 2018). According to the Solar Energy Industries Association (https://www.seia.org/states-map), as of the end of 2018, California led all U.S. states in electricity production from solar energy with 24,646 megawatts (MW) as well as the largest number of solar power jobs and the highest installed solar power capacity. The next most significant solar power producing states are North Carolina with 5,261 MW, Arizona with 3,739 MW of solar capacity, and Nevada with 3,145 MW. Florida has just 2,290 MW of installed solar capacity. Even Massachusetts and New Jersey have more solar power capacity than Florida. Many states have demanded a renewable energy portfolio standard, first developed in the 1990s, which mandates a target percentage of energy that must come from renewable sources; not Florida.

The state's Republican-dominated legislature refuses to demand that utilities generate more electricity from solar power, and Florida's Public Service Commission (appointed by the Governor and confirmed by the state Senate) voted in 2014 to terminate energy efficiency goals and alternative energy rebate programs (such as those that assist people and businesses that want to install roof-top solar power) (Penn 2014). Most people like the idea of roof-top solar power even if they cannot yet afford it; but power companies do not because it represents a serious source of competition (Roberts 2016). When a coalition of roof-top solar power advocates attempted to obtain enough signatures to put a "Solar Choice" state constitutional amendment on the ballot in 2016, Florida's power companies crafted a competing but deceptively worded amendment that ultimately would have prevented the flourishing of roof-top solar power in Florida, AND they began paying those who collected the required 683,149 signatures twice as much for their phony amendment as the roof-top solar power advocates were able to pay to their signature collectors. This effectively ended the Solar Choice amendment drive. Florida voters eventually figured out what was going on and rejected the power company sponsored amendment in November 2016 (Klas 2016). Florida's power companies are beginning to establish a few "solar farms" (such as Florida Power and Light's huge solar farm in the northeast quadrant of the intersection between U.S. interstate highways 75 and 10 near Lake City, which is clearly visible by car), but roof-top solar energy advocates may make another run at a constitutional amendment in 2020 (Gross 2019). Suffice it to say that solar power remains a much-discussed issue in the Sunshine State.

American Political Parties and the Environment

The General Social Survey (conducted by researchers at the University of Chicago; <u>https://gssdataexplorer.norc.org/variables/182/vshow</u>) indicates that Americans believe their state and federal governments are not investing enough on mitigation of environmental problems. Furthermore, individuals who participated in surveys stated that they are more concerned about environmental issues at local and national scales than those at the international scale. David M. Konisky et al. (2008) found that ideologically conservative individuals most often identify as Republicans, and they are generally less supportive of government intervention to address environmental issues. On the other hand, ideologically liberal individuals more often identify as Democrats and are generally more supportive of government intervention to address environmental problems. Both Republican and Democratic parties try to articulate their priorities through a variety of means. What follows is a modest attempt to document what the two major political parties say about environmental issues, using their 2016 national party platforms and Florida party web pages.

Republican Party

The 2016 Republican Party Platform is divided into several discrete parts, addressing multiple issues including a portion titled "America's Natural Resources: Agriculture, Energy and the Environment" (<u>https://www.gop.com/platform/americas-natural-resources/</u>). In the introduction to this section, the Republican Party contends that "We are the party of America's growers, producers, farmers, ranchers, foresters, miners, commercial fishermen, and all those who bring from the earth the crops, minerals, energy, and the bounties of our seas that are the lifeblood of our economy. . . . We look in vain within the Democratic Party for leaders who will speak for the people of agriculture, energy and mineral production." Accordingly, this section is further subdivided into three parts: Abundant Harvests, A New Era in Energy, and Environmental Progress. In the Abundant Harvests subsection, the party does not mention organic food, but it strongly opposes regulations that increase the price of food. Regarding energy, the party claims that "We support the development of all forms of energy that are

marketable in a free economy without subsidies, including coal, oil, natural gas, nuclear power, and hydropower." Never mind that American fossil fuel producers have long enjoyed significant subsidies from the U.S. government, currently to the tune of more than \$20 billion annually (Nuccitelli 2018). The Republican Party platform is not anti-solar power; but it has no appetite for government policy that stimulates or promotes solar power. As regards recycling, the platform's only reference is in the following sentence: "As a nation, we have drastically reduced pollution, *mainstreamed recycling* [italics ours], educated the public, and avoided ecological degradation." While certainly not hostile to the concept of environmental protection, the Republican Party platform clearly contends that there is too much regulation that does not protect the environment and it complains that the federal government exercises far more power than it should.

The Republican Party of Florida website (http://www.florida.gop/about us) has almost no information about its stances on the environment or anything else. In addition to a 1987 quotation from President Ronald Reagan it has the following statement: "The Republican Party of Florida will promote the principles upon which our nation and our state were founded: freedom, liberty, personal responsibility, and accountability. We will advocate fiscally-sound, common-sense solutions that will promote job and economic growth, provide the best education to our children, and create a path to prosperity for Florida and America. Members of the Republican Party of Florida will be united by these principles and will work to elect Floridians with integrity who will work to enact such solutions. We will seek to be the most effective state party in the nation and serve as a model for other party organizations." Promoting "job and economic growth" and "freedom, liberty, personal responsibility, and accountability" are certainly not anti-environment sentiments, but clearly, environmental protection is not a top priority for the Republican Party of Florida.

Democratic Party

The 2016 National Democratic Party platform (<u>https://democrats.org/about/party-platform/</u>) is divided into 11 sections, one devoted to the environment; and this section is further divided into three subsections. In the subsection titled Building a Clean Energy Economy, the party platform claims that climate change is a serious problem and that "We are committed to getting 50 percent of our electricity from clean energy sources within a decade, with half a billion solar panels installed within four years and enough renewable energy to power every home in the country." It adds that "Democrats believe the tax code must reflect our commitment to a clean energy future by eliminating special tax breaks and subsidies for fossil fuel companies as well as defending and extending tax incentives for energy efficiency and clean energy." Presumably, this includes incentives for solar power development. Several other planks in this platform call for environmental justice, better efforts to protect public lands and water resources, and support for the Endangered Species Act. They say nothing directly about recycling or organic food.

The Florida Democratic Party's (FDP) (<u>https://www.floridadems.org/</u>) statement of principles claims that it "supports environmental protections, renewable energy, clean air, food

and water for all Floridians." Similar to the National Democratic Party platform, the FDP platform recognizes the environment as a unique resource on which all Americans depend. For that reason, the FDP calls for careful stewardship of public lands, sustainable management of the Floridan aquifer, its beaches and waterways, as well as investment in renewable solar and wind energy.

Methodology

The purpose of this study is to better understand the relationship between college students' political leanings and their perspective on three specific environmental subjects: organic food consumption, recycling and solar power. Accordingly, we began with a review of literature about organic food production and consumption, recycling and solar energy. This is not intended to be an exhaustive review, but one sufficient to introduce these issues. Next, we reviewed the Republican and Democratic Party platforms at both the national level and for Florida (as expressed on their web pages) in order to develop a clear impression of each party's stance on environmental issues. Environmental issues are not high on either party's list of priorities, so we looked for statements about anything related to the environment, including stances on climate change and renewable energy. Finally, we conducted a ten-question survey of students at the University of South Florida St. Petersburg (USFSP), asking for each respondent's view of where they fit on the political spectrum (Liberal/Progressive Democrat, Moderate Democrat, Moderate Republican, Conservative Republican, Independent, Libertarian or other) as well as their perspective on organic food, solar power and recycling. We also asked if they were "activists," "supporters," "neutral" or "opposed" regarding these topics. We used this language because we thought it would give respondents the opportunity to more clearly identify their relative engagement with each issue.

The USF Institutional Review Board (IRB) reviewed and approved of the survey instrument. All participants were students from USFSP, 18 years or older; they received the survey via email from a professor between the months of January and October 2018. The survey was anonymous, which protected each student's privacy and confidentiality. We asked cooperating professors to offer no extra credit in order to limit bias on responses. In an effort to obtain responses from students who pursued different majors at USFSP, we asked professors from the following subject areas to ask their students to participate: accounting, psychology, political science, statistics, geography, literature, history and environmental science. We emailed the survey to selected professors at the beginning of the spring, summer and fall 2018 semesters.

Our goal was to attract over 100 student participants, so once we discovered that 105 students answered the survey, we stopped asking for more responses. USFSP has five core values and one of them is *care for the natural environment* (<u>https://www.usfsp.edu/about-usfsp/mission-vision-and-values/</u>). Since one of the campus's core values is care for the environment, it is speculated that a majority of USFSP students support organic food consumption, recycling and solar power use regardless of declared political ideology or awareness of environmental issues. Given the sample size, we do not engage in statistical

analysis, but offer results in the form of simple graphs and tables, and add modest interpretation and conclusions.

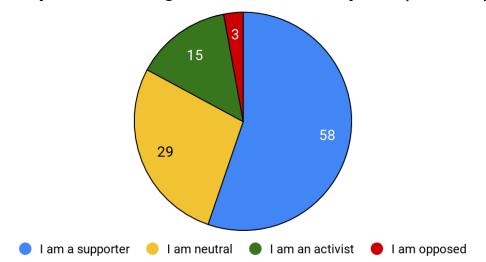
Survey Results

105 students from the University of South Florida St Petersburg participated in our survey intended to understand the relationship between their political identification and attitudes toward organic food consumption, solar power and recycling. 51 individuals claimed to be between 18 and 20 years old and 54 individuals said they were 21 years old or older. Only 31 were male and 74 were female. These students expressed a range of political party affiliations (Table 1) but most respondents identified as follows: 31 respondents identified as liberal/progressive Democrats; 22 respondents claimed no party affiliation; 18 respondents identified as moderate Democrats; and 15 respondents identified as moderate Republicans. The remaining respondents claimed to be conservative Republicans, Libertarians, Democratic Socialists, Anarchists and Socialists.

Political Identification	Number of Particip
Libertarian	3
Conservative Republican	8
Moderate Republican	15
Independent	22
Moderate Democrat	18
Liberal/Progressive Democrat	31
Democratic Socialist	1
Partnership-Socialist Influence	1
Anarchist	1
N/A	5
Total	105

Table 1. Political Identification of USF St. Petersburg Survey Participants.

In terms of perspectives on organic food consumption, all participants were asked if they were an activist, supporter, neutral or opposed. More than half claimed to support organic food consumption, 14% of participants claimed to be activists, another 28% were neutral and just three individuals were opposed (Figure 1).



Perspective on Organic Food Consumption (n = 105)

Figure 1. Number of USFSP students who selected one of the following options when asked what they thought about organic food consumption: activist, supporter, neutral or opposed.

Can we drill down any deeper and discern any relationship between our respondents' political identification and their perspective on organic food consumption? Yes and no. If we look carefully at the 15 respondents who claimed to be organic food activists, people presumably very committed to organic food consumption, it is perhaps unsurprising that five respondents identify as liberal/progressive Democrats, another respondent identifies as a Socialist, another as a Democratic Socialist and another as a moderate Democrat. Yet two moderate Republicans, two Libertarians and a conservative Republican also claimed to be organic food activists (along with two others who claimed to be Independent or No Party Affiliation). Of the 58 respondents who claimed to be "supporters" of organic food consumption, just over half also claimed to be progressive or moderate Democrats, nearly 30% claimed no party affiliation, and 19% claimed to be moderate or conservative Republicans. Moderate and progressive Democrats accounted for 41% of the 29 students who claimed to be "neutral" toward organic food consumption, moderate and conservative Republicans accounted for another 31%, while independents and others accounted for the remaining 28% of respondents who claimed to be neutral toward organic food. Of the three respondents who claimed to be "opposed" to organic food consumption, one claimed to be a progressive Democrat, another claimed to be a Libertarian, and another an Independent.

In summary, moderate and progressive Democrats account for roughly half of those who claimed to be organic food "activists" or "supporters." Moderate and conservative Republicans accounted for nearly 20% of respondents who claimed to be organic food supporters or activists. Independents and very small numbers of "others" account for nearly a third of our organic food supporters and activists. Similarly, among respondents who claimed to

be neutral *or* opposed to organic food consumption, roughly 40% identified as moderate or progressive Democrats, 28% identified as moderate or conservative Republicans, and others (mostly Independents) account for the remaining one-third.

Recall that we also asked respondents if they considered themselves an activist, supporter, neutral or opposed to recycling. Figure 2 illustrates that nearly two-thirds of our participants claimed to support recycling and nearly one-third claimed to be recycling activists.

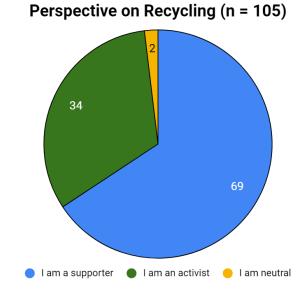


Figure 2. Number of USFSP students who selected one of the following options when asked what they thought about recycling: activist, supporter, neutral or opposed.

Only two respondents claimed to be neutral and none claimed to be opposed to recycling. Among those who claimed to be recycling "activists," Figure 3 shows that more than half identified as moderate or progressive Democrats while just over 11% identified as moderate or conservative Republicans.

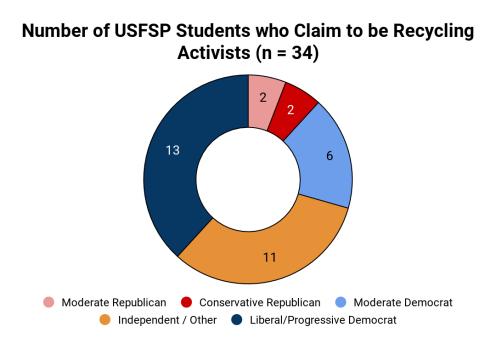
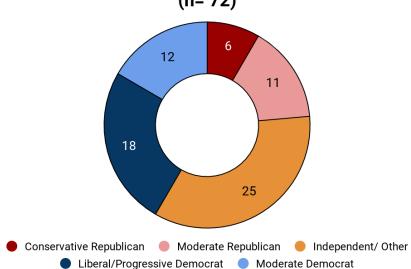


Figure 3. Political identification of those survey respondents who claim to be recycling activists.

Of those who claimed to be recycling "supporters," Figure 4 reveals that moderate and progressive Democrats accounted for roughly 43% of respondents while moderate and conservative Republicans accounted for nearly a quarter of our respondents. The two respondents who claimed to be "neutral" on recycling claimed to be moderate Republicans.

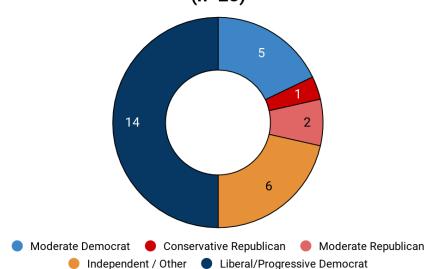


Number of Participants who Claim to be Recycling Supporters (n= 72)

Figure 4. Political identification of those survey respondents who claim to be recycling supporters.

In summary, considerably more of our participants identifying on the left side of the political spectrum claim to be more supportive of recycling than those whose politics are right of center.

Similarly, when we asked 105 students about solar power, nearly two-thirds of our respondents claimed to be "supporters," slightly more than a quarter claimed to be "activists," and just over 8% claimed to be neutral. According to Figure 5, among those claiming to be solar power "activists," two-thirds identified as moderate or conservative Democrats, and just over 10% claimed to be either moderate or conservative Republicans—with Independents and others accounting for the remaining solar power activists.



Number of Students who Claim to be Solar Power Activists (n=28)

Figure 5. Political identification of those survey respondents who claim to be solar power activists.

Among the more numerous solar power "supporters" (n = 68), more than 42% identified as moderate or progressive Democrats, just over 20% identified as moderate or conservative Republicans, with Independents and others accounting for the remaining solar power supporters. Six out of nine respondents who claimed to be "neutral" on solar power identified as moderate or conservative Republicans; the other three included a progressive Democrat, Independent and Libertarian. In summary, among our survey respondents, far more solar power "activists" and "supporters" came from the left side of the political spectrum while those who claimed to be "neutral" on solar power were more often Republicans.

Conclusion

We began this project with the assumption that Democrats were more likely to support policy and personal action in support of environmental protection than Republicans. Accordingly, our first research question asked if the Republican Party is less supportive of environmental protection than the Democratic Party. The literature suggests as much even if this generalization is based on modest survey data that seldom focuses on specific environmental issues. Furthermore, a review of each party's 2016 election year party platforms confirms that the Democratic Party had a larger number of, and more specific statements about, environmental protection.

Our second research question asked if college students are generally more progressive on environmental issues. Our results clearly support the idea that most USFSP college students favor efforts to protect the environment. Yet our sample is somewhat self-selective in that USF St. Petersburg openly claims to support sustainability initiatives—so it may be more likely to attract students (Republicans, Democrats and others) who support environmental protection policies and actions. Moreover, perhaps only those interested in environmental issues bother to respond.

We posed a third research question as follows: are college students who self-identify as Democrats more likely than those who identify as Republicans to support efforts to improve the environment? We thought that by focusing on specific environmental issues, we might be able to shed more light on the relationship on the political identification of college students and these particular issues. Our results appear broadly consistent with the generalization that college Democrats are more supportive of environmental causes than college Republicans. For example, much larger percentages of our Democrats claimed to be either "activists" or "supporters" of solar power, recycling and organic food consumption. Yet none of our respondents claimed to be "opposed" to recycling or solar power and only three opposed organic food consumption (including one progressive Democrat and no Republicans). Still, among those few students who claimed to be "neutral" toward solar power (n =2) and neutral toward recycling (n = 9), only one identified as a Democrat and six others identified as Republicans. The larger number of respondents who claimed to be neutral regarding organic food consumption (n = 29), reveals a more even divide between those who identified as Democrats (who accounted for 41% of those who were neutral) and Republicans (who accounted for 31% of those who were neutral). Clearly, a larger number and broad political spectrum our respondents do not have firm views on organic food consumption.

Of course, none of those proves that Democrats (in college or not) "care more about the environment" than Republicans. Results from our small sample of college students from one campus, is, to a certain extent, supportive of the generalization that college age Democrats are more supportive of policy and personal action in favor or environmental protection. Yet answers to survey questions are not necessarily indicative of personal action or support for particular politicians.

Moreover, although we tried to be careful regarding the language we used to help respondents quickly answer questions about their politics and perspectives on three selected environmental issues, we probably could have done better. For example, we assumed that respondents would understand what we thought when we used the labels "activist" and "supporter." We took the word "activist" to mean somebody who takes some sort of action (either in public or in private), but upon further reflection, some respondents might have thought that an "activist" to be limited to people who engage in public demonstrations in support of a particular issue rather than guiet (but equally important) action in their personal behavior. Similar confusion may have accompanied some respondents' ideas about the word "supporter" in which we assumed that "supporters" were people who might have a favorable view of a particular issue, but they do not or perhaps cannot take clear action in support of an issue (EX: many people "support" solar power perhaps by voting for politicians who push policies that expand the use of solar power—but they do not attend public demonstrations and they cannot afford to install roof-top solar power on their own homes.) Similarly, it might have been useful to have a more detailed break-down of the age of our respondents. We assumed that most participants would be traditional college age and although that is generally true, it certainly limits the impact of our findings. Finally, it always helps to recruit more participants in order to improve the impact of findings; future work could seek students from other college campuses.

These issues notwithstanding, we think this study takes a small step toward addressing the generalization that those on the left side of the political divide are more supportive of environmental protection than those on the right. We examined three specific issues related to the environment: organic food consumption, solar power, and recycling—and our college student respondents gave us results that are broadly consistent with this generalization. In addition to making surveys as clear as possible, future work should include a wider range of students from more college campuses, explore more "environmental issues" and perhaps endeavor to grasp more detail from respondents using interviews or focus groups (or both).

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Description (optional)

What is your age group?*	
0 18 - 20 years old	
21 or over	
Gender Identification?*	
O Male	
Female	
O Other	

How often do you vote in different elections? *

	Always/ Almost Alwa	At least half the time	Less than half the time	Never/Almost Never
National/ General	0	0	0	\circ
Primary	0	0	0	0
State	0	0	\bigcirc	0
Local	0	0	0	0

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What is your housing arrangement?

I live on campus.

- I live by myself off campus.
- I live with my parents/family.
- I live with one or more roommates off campus.

Which of these political leanings best describes you?

. . .

- Liberal/Progressive Democrat
- Moderate Democrat
- Moderate Republican
- Conservative Republican
- 🔵 Libertarian
- Independent
- Other...

Which of these statements best describes your opinion of the following subjects?

*

	I am opposed	I am neutral	I am a supporter	I am an activist
Consuming Organic F	0	0	0	0
Solar Energy	\bigcirc	0	0	0
Recycling/paper/plas	\bigcirc	0	0	0

Select the statement that best describes your opinion on Recycling paper, plastic or metal products

I go out of my way to recycle because I think it is the right thing to do.

- I would recycle more often if it was more convenient.
- I recycle mostly because I feel pressure from peers.

I rarely recycle because I do not have time to locate appropriate receptacles.

I rarely recycle because I do not think it accomplishes much or anything.

:::

Select the statement that best represents your opinion on Eating Organic Food

- I consume organic food often because it is important to me.
- I consume organic food sometimes, but it is hard to find.
- I rarely consume organic food because it is too expensive.
- I rarely consume organic food because I do not think it accomplishes much.
- I try to avoid organic food because I think it is not good for me.

...

Select the statement that best represents your opinion on solar energy

I think there should be laws and regulations to force utility companies to generate more electricity from solar power ...

I think utilities should generate more electricity from solar power BUT I oppose government subsidies intended to fo...

I think government should offer subsidies to help people install solar panels, BUT I oppose to laws and regulations t...

I think utility companies should avoid solar power and use the cheapest means available to generate electricity AND...

:::

Do you think that political party affiliation impacts people's perspectives on environmental issues?

🔿 yes

O no

osometimes